

ADVANCE PROGRAM

**66th Annual Meeting
FLORIDA ACADEMY OF SCIENCES**

March 7-9, 2002

**BARRY UNIVERSITY
Miami, Florida**

Featuring a Special Session:

**FOREVER GLADES:
CURRENT TRENDS IN EVERGLADES RESTORATION**

**With a Saturday Field Trip to the Rocky Glades
Helicopter Tour of the Everglades Construction Project's STA's
and an address by**

**Joseph A. Schweigart, P.E., P.L.S.
South Florida Water Management District
Deputy Executive Director, Public Works
Overseeing the Everglades Construction Project and
the Comprehensive Everglades Restoration Plan**

Early Registration Discount ends February 15, 2002

MEETING INFORMATION

The 66th Annual Meeting of the Florida Academy of Sciences will be held at Barry University in Miami, Florida from March 7-9, 2002. A special session is planned, which is titled Forever Glades: Current Trends in Everglades Restoration. There will also be a Saturday field trip to the Rocky Glades, and a Helicopter Tour of the Everglades Construction Project's Stormwater Treatment Areas. Advance reservations for the helicopter tour must be made with Mr. Dan Moss at 561-682-2718. At 12:45 PM Friday, March 8, the Annual Business Meeting will take place, to be followed at 1:30 PM by the Gale Plenary Lecture, given by Joseph A. Schweigart, P.E., P.L.S., who oversees the Everglades Construction Project and the Comprehensive Everglades Restoration Project for the South Florida Water Management District. At the Academy Banquet on Friday night, Dr. Clifford J. Dawes, the 2001 Academy Medalist, will give the Annual Medalist Address.

FLORIDA ACADEMY OF SCIENCES 2002 ANNUAL MEETING PROGRAM SUMMARY

	Time	Event
Thursday 7 March 2002	3:00 PM – 5:30 PM	Registration, Wiegand Lobby
	5:30 PM – 7:00 PM	Dinner on your own at local restaurants (information at Registration Desk)
	7:00 PM	FAS Council Meeting - Kostka Room
	7:30 AM – 4:00 PM	FAS Registration & Information Desk , Wiegand Lobby
Friday 8 March 2002	8:00 AM – 12:30 PM	FAS Concurrent Paper Sessions See Registration Desk for Room Locations
	12:00 PM – 2:15 PM	Lunch, Cafeteria Business Meeting & Gale Plenary Lecture, Wiegand 116
	2:30 PM – 5:00 PM	FAS Concurrent Paper Sessions See Registration Desk for Room Locations
	6:00 PM – 7:00 PM	Reception, Andreas 111
	7:00 PM – 10:00 PM	FAS Banquet & Medalist Address Andreas 111
	8:30 AM – 12:00 PM	FAS Registration & Information Desk, Wiegand Lobby
Saturday 9 March 2002	8:30 AM – 12:00 PM	FAS Concurrent Paper Sessions See Registration Desk for Room Locations
	8:30 AM – 4:30 PM	Field Trip to the Rocky Glades & Helicopter Tour (Advance reservation required for Helicopter Tour)
	8:30 AM – 4:30 PM	Florida Junior Academy of Science Annual Meeting Wiegand or Broad Auditorium
	12:00 PM	Lunch on your own at local restaurants (information at Registration Desk)
	AFTERNOON	Trips to various local attractions (information at Registration Desk)

LODGING

No reservations can be made through the Academy. A complete listing of hotels in the greater Miami area is given at the website <http://www.miamishores.com/>. The following hotels are nearby and may have “Barry rates” if you identify yourself with the FAS meeting at Barry University. Prices listed are approximate and may show seasonal variation. Early reservations are a must at this time of year.

White House Inn (10 minutes from Barry). Barry gives this their highest recommendation.
2305 NE 123rd Street, North Miami, FL 33181, 305-893-8280 - Barry Rate during season \$55

Best Western Inn on the Bay (20 minutes from Barry). Also highly recommended by Barry.
1819 79th Street Causeway, North Bay Village, FL, 305-865-7100 - Barry Rate around \$75

Sea View Hotel (20 minutes from Barry). Highly recommended but Barry Rate in season is \$185.
9909 Collins Avenue, Bal Harbour, FL 33154, 305-866-4441

Bay Harbor Inn & Suites (20 minutes from Barry). Also highly recommended; rates \$130-140.
9660 East Bay Harbor Drive, Bay Harbor Island, FL 33154, 305-868-4141

Howard Johnson Motor Lodge (20 minutes from Barry). Rates in season: \$99+.
16500 NW 2nd Avenue, North Miami, FL 33169, 305-945-2621 or 1-800-446-4656

Holiday Inn North Miami (10 minutes from Barry). Rates in season: \$99+ (Barry does not use).
12210 Biscayne Blvd, North Miami, FL 33181, 305-891-7350 or 1-800-465-4329

Holiday Inn Pro-Player Stadium (20 minutes from Barry). Rates in season: \$99+.
148 NW 167th Street, North Miami, FL 33169, 305-949-1441 or 1-800-465-4329

TECHNICAL SESSIONS

SPECIAL SESSION

FOREVER GLADES: CURRENT TRENDS IN EVERGLADES RESTORATION

Friday, March 8, 9:30 am – 3:45 pm

Structural Organization of Everglades Floating Periphyton Mat.
C. M. Donar, M. Gantar, K.W. Condon, E. E. Gaiser, and R. D. Jones.
Barry University and Florida International University.

Midge Community Composition and Emergence Phenology along Hydroperiod Transects in Everglades National Park.
R. E. Jacobsen and S. A. Perry, South Florida. Natural Resources Center.

Suppression of Brazilian Pepper on Soil Disposal Mounds in Everglades National Park.
R. T. McMullen, K. Jayachandran, and M. R. Norland.
Florida International University and Everglades National Park.

Mammal use of restored wetlands in Everglades National Park.
B. W. Keith, N. K. O'Hare, and G.H. Dalrymple.
Everglades Research Group, Inc.

The effect of mycorrhizal colonization and phosphorus levels on *Cladium jamaicense* growth in marl and Hole-In-The-Doughnut soils.
S. Kemp, K. Jayachandran, D. Stockman, and M. Norland
Florida International University and Everglades National Park.

Apple snail use of short-hydroperiod restored wetlands.
N. K. O'Hare, and G. H. Dalrymple. Everglades Research Group, Inc.

Soil Survey of Shark Slough in the Everglades National Park.
K. Jayachandran, M. Ross, C. L. Coultas, P. Ruiz, and D. L. Reed.
Florida International University and Florida A & M University.

Relationship between soil moisture and nutrient availability in the tree islands of Shark Slough, Everglades National Park.
E. Mickler, K. Jayachandran, M. Ross, D. Stockman, P. Ruiz, D. Reed, and S. Oberbauer. Florida International University

Success criteria and successional trends on restored wetlands in the Hole-in-the-Donut in Everglades National Park.
G. H. Dalrymple, and N. K. O'Hare. Everglades Research Group, Inc.

Pigment-Based Chemotaxonomy of Phytoplankton in North-Central and Western Florida Bay.
J. W. Louda. Florida Atlantic University.

Utilization of "Epiphytometers" for the Estimation of Epiphyte Productivity and Community Structure in Conjunction with HPLC Pigment Analysis.
A. Singh, and J. W. Louda. Florida Atlantic University

Linking Everglades Restoration and Enhanced Freshwater Flows to Elevated Concentrations of Mercury in Florida Bay Fish.
D. G. Rumbold, and D. W. Evans. SFWMD, and NOAA

Retrospective Analysis of the Impacts of Major Hurricanes on the Sediment of the Lower Everglades and Florida Bay.
W. J. Kang, and J. H. Trefry.
Southwest Florida Water Management District, and Florida Institute of Technology.

Effects of the Exotic Old World Climbing Fern, *Lygodium microphyllum*, on the Ant Diversity of Tree Islands in the Northern Everglades.

A. C. Darby, J. K. Wetterer, L.A. Brandt, and F. J. Mazzotti
Florida. Atlantic University

Crustacean communities from ground waters in the southern Everglades, in relation to hydrological and geological features.
M. C. Bruno, K. C. Cunningham, and S. A. Perry
Everglades National Park, and US Geological Survey.

Apple snail use of short-hydroperiod restored wetlands.
N. K. O'Hare and G. H. Dalrymple. Everglades Research Group, Inc.

Effects of Water Level and Predation on Survival of Spotted Sunfish Larvae in the Florida Everglades.
X. O. Pagan, J. C. Trexler, and W. F. Loftus
USGS-BRD, and Florida International University

Mammal use of the restored wetlands in Everglades National Park.
B. W. Keith, N. K. O'Hare, and G. H. Dalrymple
Everglades Research Group, Inc.

AGRICULTURAL AND NATURAL RESOURCES

Friday, March 8, 9:30 am – 12:15 pm

Experiential Teaching in Agri-Science Education: Methods to Improve Instruction.
M. A. Wade, University of Florida.

Land Acquisition and Incentive Programs for Endangered Species Conservation in South Florida.
J. A. Graham, F.J. Mazzotti, and J.M. Sinclair,
University of Florida and Palm Beach Atlantic College.

Population Dynamics of Meristems among Defoliated Brazilian Peppertrees: Consequences for Growth and Reproduction.
L. W. Treadwell, and J.P. Cuda, University of Florida.

Transport of Agrochemicals in Calcareous Soils of South Florida.
K. Konomi, K. Jayachandran, M.R. Savabi, D. Shinde, and S. T. Reed,
Florida International University, and USDA-ARS.

Agricultural Market Development: Utilization of the Florida Model in Nigeria.
M. A. Wade, University of Florida.

Strawberry Guava: Prospects for Classical Biological Control in the USA.
J.P. Cuda, and M. T. Johnson, University of Florida and USDA.

Survey of Arthropod Fauna on *Psidium spp.* in South Florida.
C. G. Martin, and J.P. Cuda. University of Florida.

Bioassay Results of a Novel Bio-rational Compound for Control of Economic and Medically Important Insect Pests.
L. S. Long, J.P. Cuda, and B. R. Stevens, University of Florida.

Bahiagrass Protection from Mole Crickets with Beneficial Nematodes.
M. B. Adjei and G. C. Smart. University of Florida.

TECHNICAL SESSIONS

ANTHROPOLOGICAL SCIENCES

Friday, March 8, 10:00 am – 11:45 am

Three Slavers and Key West in May, 1860.

M. Faraldo. University of Miami

Statures in Two Archaic Florida Populations: Comparison of Estimations Based on Long Bones.

H. L. Szumila, and P. M. Dietrich. University of Miami

Pauciarticular Juvenile Rheumatoid Arthritis or Multiepiphyseal Displasy: An Example of Non-invasive Differential Diagnosis.

P. M. Dietrich, and L. E. Overbaugh. University of Miami

Demographic Adaptation of Urban Caribbean-Americans.

R. A. Halberstein. University of Miami

An Urban Troop of Squirrel Monkeys (*Saimiri Sciureus*).

L. L. Taylor. University of Miami.

Food Choice and Agonism in Free-Ranging Lemurs in Myakka City, FL.

B. Grossi. Lemur Conservation Foundation.

ATMOSPHERIC AND OCEANOGRAPHIC SCIENCES

Friday, March 8, 2:30 pm – 5:30 pm

Climate Change Impact in Honduras: Preliminary Assessment.

A. E. Rodriguez, L. Gonzalez, and I. M. Erazo
Barry University, and National Pedagogical University Francisco Morazan.

Water temperature changes at tide gauge sites of the United States.

G. A. Maul. Florida Institute of Technology.

The Effect of La Niña on Florida Precipitation, 1948-2000.

K. G. Kandefer, and G. A. Maul.
Florida Institute of Technology.

Fecal Indicator Organisms in Tropical Beach Sands.

T. Davidian, A. Hartz, M. Green, N. Esiobu, D. Mccorquodale, and A. Rogerson. Nova Southeastern University, and Florida Atlantic University.

Relative Survival of Fecal Organisms in Beach Sand and Seawater as Indicated by Mesocosm Experiments

A. Hartz, T. Davidian, M. Green, N. Esiobu, D. Mccorquodale, and A. Rogerson. Nova Southeastern University and Florida Atlantic University

Potential Novel Indicators of South Florida Recreational Beaches.

M. Green, N. Esiobu, A. Rogerson, D. Mccorquodale, T. Davidian, and A. Hartz. Florida Atlantic University, and Nova Southeastern University.

Copper in the Sediment of the Hillsborough River Reservoir.

R. P. Milloy, Jr., and J. C. Hohman.
Southwest Florida Water Management District, and Saint Leo University.

Beachscape Brevard: Coastal GIS Mapping Comes to Florida.

C. T. Hutcherson, J. Windsor, and M. Walther
Florida Institute of Technology, and Coastal Tech.

The Long-Term Effects of Dredging on Sediment Transport and Water Quality in Crane Creek and the Indian River Lagoon (IRL), Melbourne Florida.

D. A. Straccione, and J. G. Windsor. Florida Institute of Technology.

Post-Dredging Evaluation of Turkey Creek, Florida.

J. H. Trefry. Florida Institute of Technology.

BIOLOGICAL SCIENCES

Friday, March 8, 8 am – 4:00 pm.

The Relationship Between Wing Morphology and Minimum Flight Temperature in Cicadas (Homoptera: Cicadoidea).

C. G. Valdes, A. F. Sanborn, L. M. Perez, and M. RM. Gebaide
Barry University.

Is There a Thermal Benefit to Crepitating in Cicadas (Homoptera: Cicadoidea)?

A. F. Sanborn, F.G. Noriega, and P. K Phillips. Barry University,
University of Arizona, and American University of the Caribbean.

Optimizing transfection efficiency for HEK-293 cells with cDNA coding Ca²⁺ channel subunits.

D. N. Ragoonath, S. Papadopolous, and K. Beam.
Barry University and Colorado State University.

The Effect of Free Fatty Acids on AKT phosphorylation.

E. Hughes, A Chavez, S. G. Florant, and S. Summers.
Barry University and Colorado State University.

Role of Inhibin as an Intragonadal Modulator.

T. Petrino, and Y-W. P. Lin. Barry University.

Tyrosine kinase activity in cultured rat embryonic septal neurons affected by nerve growth factor (NGF) and estrogen.

D. Green, A. Jonusas, L. M. Mudd, and J.R. Montague. Barry University

The Effect of Beta-amyloid Concentrations on Survival of Cultured Septal Neurons.

A. Christian, D. Green, J Montague, and L. M. Mudd. Barry University

Growth Factor Reversal of Beta-Amyloid Toxicity in Septal Neurons.

B. R. Garcia, C. Edwards, and L. M. Mudd. Barry University.

Beta-amyloid Effects on S100β and Reversal by Growth Factors in Neurons.

D. N. Ragoonath, and L. M. Mudd. Barry University.

Growth Factor Reversal of Ethanol Effects on Synapse Formation in Cortical Neurons.

W. E. Krayssa, and L. M. Mudd. Barry University

Ethanol Effects on GFAP in Glia.

A. Ackbarali, and M. Mudd. Barry University.

Determination of D-Aspartic Acid in the optical lobes and synaptosomes of *Octopus vulgaris* subjected to exercises of learning and memory.

J.Rios, A.Christian, K.Peterson, and A.D' Aniello
Barry University, and Stazione Zoologica Naples.

D-Aspartic acid and N-methyl-D-aspartic acid in rat and human brain and its involvement in learning and memory.

A. E. Christian, K. B. Peterson, J. M. Rios, and A. D' Aniello.
Barry University, and Stazione Zoologica Naples.

Detection and Induction of Polyketide Synthase and Bioactive Compounds in Marine Sponges and Associated Bacterial Isolates.

K. A. Sandell, and J. V. Lopez. Harbor Branch Oceanographic Institution

TECHNICAL SESSIONS

Expressed Sequence Tag of the Larval Mosquito Gut.

R. Pierre-Charles, E. Meleshkevith, and P. J. Linser
Barry University, and University of Florida's Whitney Laboratory.

Molecular Evaluation of the *tumorous-head-1* locus in *Drosophila*.

M. Abreu, and G. Packert. Barry University.

Genetic Interactions between the *Polycomb* gene and the Bithorax-Complex in *Drosophila*.

G. Packert. Barry University.

Cloning and Sequencing of *Danio rerio* (Zebrafish) *Polycomb* Gene Using Polymerase Chain Reaction (PCR).

Y. W. P. Lin, G. Packert, and T. Petrino. Barry University.

Tyrosine²⁸³ Mutation of the Rat GnRH Receptor by Polymerase Chain Reaction.

M. Abreu, D. Oh, and H. Kwon.
Barry University and Chonnam National University, Korea.

Color Vision: A Study of Color Weakness and Gender.

M. Gottfried, B. E. Rothstein, and M. S. Gaines.
North Miami Beach Senior High School, and University of Miami.

Study of the polyketide synthase (PKS) gene from a marine dinoflagellate (Genus *Symbiodinium*).

R. V. Snyder, J. R. Montague, and K. Rein.
Florida International University, and Barry University.

Use of brine shrimp (*Artemia franciscana*) to assay LD₅₀ toxicity of ethyl acetate extracts from a marine dinoflagellate (Genus *Symbiodinium*).

K. Rein, J. R. Montague, N. Chin, and S. Dick
Florida International University, and Barry University.

The Seasonal Occurrence of Higher Filamentous Marine Fungi on Mangroves in J. U. Lloyd State Park.

C. Vogel, S. Schatz, H. Laubach, A. Rogerson. H. Hada, and J. Cauffman.
Nova Southeastern University.

Vegetation and Salinity Relationships along the Northwest Fork of the Loxahatchee River.

J. G. Zahina, South Florida Water Management District

Water Quality and Seagrass Monitoring Programs in the Shell Key Preserve, Tampa Bay, Florida.

M. E. Flock, A. Squires, and C. Flegel.
Pinella County Department of Environmental Management.

Combining Ecological and Paleoecological Methodologies to Decipher "Change" in Florida's Coral Reef Communities.

W. F. Precht, PBS & J.

Spatial and Temporal Variation in the Recruitment Patterns of Encrusting Organisms Associated with Sabellariid Reefs in Boynton Beach, Florida.

D. A. McCarthy. Smithsonian Marine Station at Ft. Pierce.

Population Biology of a Fissiparous Brittlestar (Echinodermata) in sponge and algal habitats.

E. A. Springer, and R. L. Turner. Florida Institute of Technology.

Seasonal Abundance and Periodicity of *Daphnia* species in Central Florida.

J. A. Osborne, University of Central Florida.

The Influence of Flow Rate on Fish Distribution in Blue Spring (Volusia County, Florida).

L. F. French, K. A. Work, and M. A. Gibbs. Stetson University.

Prey Targeting by the Infrared Imaging Snake *Python*: Effects of Experimental Visual and Infrared Sensory Deprivation.

A. B. Safer, A. Matsushita, B. J. Buck, and M. S. Grace.
Florida Institute of Technology.

Movements and Home Range of Raccoons (*Procyon lotor*) on a Coastal Island in Northeastern Florida.

J. A. Butler, J. L. Mosley, and J. Phillips. University of North Florida.

Dispersion Patterns of the Cotton Rat (*Sigmodon hispidus*) in Response to Habitat Structure.

K. B. Clanton, and I. J. Stout. University of Central Florida

The B.U.C.K.I. (Barry University Cat and Kitten Initiative) Project.

A. Long, J. Eckhoff, and P. I. Higgs. Barry University.

Identification of a splice variant of mouse allograft inflammatory factor-1. (Poster)

M.E. Handel-Fernandez, E. Van Der Put, and V. Vincek.
Barry University and University of Miami.

Ethanol Effects on GFAP in Glia. (Poster)

A. Ackbarali, and L. M. Mudd. Barry University

The Effect of Beta-amyloid Concentrations on Survival of Cultured Septal Neurons. (Poster)

A. Christian, D. Green, J. Montague, and L. M. Mudd. Barry University

Growth Factor Reversal of Beta-Amyloid Toxicity in Septal Neurons. (Poster)

B.R. Garcia, C. Edwards, and L. M. Mudd. Barry University.

Growth Factor Reversal of Ethanol Effects on Synapse Formation in Cortical Neurons. (Poster)

W. E. Krayssa, and L. M. Mudd. Barry University.

Dose Effect of Beta-Amyloid on Glial Fibrillary Acidic Protein in Septal Glia. (Poster)

E. Hughes, and L. M. Mudd. Barry University

Beta-amyloid Effects on S100 β and Reversal by Growth Factors in Neurons. (Poster)

D. N. Ragoonath, and L. M. Mudd. Barry University.

Rhabdom Shedding in *Limulus* Lateral Eye Photoreceptors. (Poster)

G. Toussaint, and B. Battelle. Barry University.

Zooplankton Population's Dynamics of two open Lakes along the St. Johns River, Florida: Lake Jessup and Lake Washington. (Poster)

L. M. Drennan, and J. A. Osborne, University of Central Florida

COMPUTER/MATHEMATICAL SCIENCES

Friday, March 8, 9:30 am - Noon

From Frogs to Recursively and Explicitly Defined Functions.

S. Selby. Palm Beach Atlantic College

On a Problem of Finding the Number of Ways of Changing a Dollar.

S. Zivanovic and A. Akhpola. Barry University.

TECHNICAL SESSIONS

Mathematics Electronically.

J. A. White, Saint Leo University.

Teaching Online Statistics at Saint Leo University.

S. Bondari, Saint Leo University.

Mathematics on video.

J.A. White, Saint Leo University.

A History of the Identities and the Central Identities of the matrix Rings.

R. S. Bondari, Saint Leo University.

Opportunities for Mathematics Educators in HEC.

R. Criss. Saint Leo University.

Mathematics & General Chemistry: Equipping the Student Toolbox.

J. K. Williams. Saint Leo University.

The Aztec and Mayan Calendars.

R. Sigley. Palm Beach Atlantic College

ENVIRONMENTAL CHEMISTRY AND CHEMICAL SCIENCES

Friday, March 8, 8:30 am – 3:30 pm

Historical Blunders in Chemistry.

D. F. Martin, and B. B. Martin. University of South Florida.

Comparison of log P Values Calculated with CAChe and Other Methods

M. E. McKenzie, B. B. Martin, and D. F. Martin. University of So. Fla.

Air Quality Studies of Two Primary Eye Care Clinics.

N. Patel, S. Schatz, H. Laubach. H. Hada, and A. Rogerson, R. Mathews, E. Koske, and D. Esiabu. Nova Southeastern University, and Florida Atlantic University.

Synthesis of Muscarinic Agonists.

J. Boulos, C. Stujenske, C. Philip. Barry University

Isolation of the Anti-tumor Compound Betulinic Acid and Preparation of Derivatives.

M. Camacho, P. Reese, G. Martin. Barry University and University of West Indies

Analysis of the Total Phosphorus Results for Split Sampling in the Everglades Agricultural Area.

B. Donovan, and D. Struve. South Florida Water Management District.

Synthesis of an Analog of the Marine Alkaloid Shermilamine B.

I. Lopez, Y. Jackson, N. Townsend.

Barry University, and University of the West Indies

Extraction of Well Known Natural Products: New Applications of an Old Friend.

M. Cunningham, and P. I. Higgs. Barry University.

Synthesis of an Analogue of Kuanoniamine A- a Pharmacologically Active Marine Alkaloid.

R. Peralta, S. Hepburn, and Y. Jackson.

Barry University, and University of West Indies

Determination of D-aspartate and NMDA in the ring ganglia of

Aplysia. K. B. Peterson, and A. D'Aniello.

Barry University and Stazione Zoologica, Naples.

Spondias Mombin: The Trinidadian Healing Tree.

S. Singh, and P. I. Higgs. Barry University.

Synthesis of Two L-7-Deazaaristeromycin Analogues.

K. L. Seley, J. Boulos, C. Stujenske, and S. Mosley

Georgia Institute of Technology, and Barry University

Effects of Light Field upon the Chemotaxonomic Estimation of Cyanobacteria in Lake Okeechobee, Florida.

K. Skoog, and J. W. Louda. Florida Atlantic University

Determination of D-aspartate and N-methyl-D-aspartate in the ring ganglia of *Aplysia* and their involvement in learning and memory. (Poster)

K. Peterson, A. Christian, J. Rios, G. Fisher, and A. D'Aniello.

Barry University and Stazione Zoologica Naples

FLORIDA COMMITTEE ON RARE AND ENDANGERED PLANTS AND ANIMALS

Friday, March 8, 2:30 pm – 4:15 pm

A Habitat Evaluation Model for the Federally Threatened Flatwoods Salamander (*Ambystoma cingulatum*) for Use in the Florida Panhandle.

B. Davis, B. Wharton, and H. Cooper. HDR Engineering, and USFWS

An Overview of Bat Research in Central America, the Caribbean, and Northern South America, with Comments on Technological Advances in Investigative Techniques.

M. E. Thomas. Palm Beach Atlantic College

Plasma Levels of Vitamins A and E in Three Marine Turtle Species Nesting in the Archie Carr National Wildlife Refuge.

K. P. Frutchey, E. S. Dierenfeld, L. M. Ehrhart, and P. C. H. Pritchard.

University of Central Florida, Wildlife Conservation Society, Bronx, New York, and Chelonian Research Institute, Oviedo, Florida.

The Effects of Fire and Exotic Mammals on Rare Plant Habitat in a South Florida Pine Savanna.

D. W. Black, South Florida Water Management District.

Arbuscular Mycorrhizae and Restoration of Endangered Plants in Subtropical Florida.

J. B. Fisher, and K. Jayachandran.

Fairchild Tropical Garden, and Florida International University

Decline of the Southern Dusky Salamander in the Southeastern U. S.

D. B. Means. Coastal Plains Institute and Land Conservancy.

GEOLOGICAL AND HYDROLOGICAL SCIENCES

Friday, March 8, 2:30 pm – 4:00 pm

Water Sustainability Issues in Florida: Meeting the Demand of a Thirsty State.

G. H. Means, and T. M. Scott. Florida Geological Survey

Water Quality Sampling of Florida's First Magnitude Springs: FGS Bulletin 31 Update.

R. P. Meegan, R. C. Means, G. H. Means, and T. M. Scott. Florida Geo. Survey

Use of Indices in Evaluating Florida's Ground-Water Quality.

S. B. Upchurch, and R. E. Copeland.

SDII Global and Florida Department of Environmental Protection

TECHNICAL SESSIONS

Florida Aquifer Vulnerability Assessment (FAVA): Development of a Vulnerability Model for Florida's Aquifers.

A. E. Baker, J. R. Cichon, J. D. Arthur, and Suvat Kher. Fla. Geol. Survey

MEDICAL SCIENCES

Saturday, March 9, 8:30 am – 12:15 pm

Diagnosis of Parasitic Infections Using Unix, Proto-Fix and Parasafe Fixatives.

H. E. Laubach, S. Schatz, C. J. Palmer, D. E. Burris, C. Cruz, P. Dipatrizio, R. K. Zlamal, and M. A. Silverman.

Nova Southeastern University, Public Health Program, Ft. Lauderdale, 324th Combat Support Hospital, Perrine, and Martinsburg Veterans Affairs Medical Center, Martinsburg, West Virginia.

Parasitic Infections of Mayan Indians Living in Rural Guatemala.

C. Z. Bentley, J. S. Spalter, E. L. Ginter, and H. E. Laubach.,
Nova Southeastern University.

Western Blot Analysis and Deglycosylation of Bahia Protein Allergens.

G. Ghobrial, S. Naser, M. J. Sweeney, and R. S. White
University of Central Florida

Cross-Reactivity between Timothy and Bahia Grass Pollen Allergens.

J. M. White, A. Majidi, G. Ghobrial, S. Naser, M. J. Sweeney, and R. S. White. University of Central Florida,

Muscle Properties after Reinnervation by Embryonic Nerve Cells.

S. Sesodia, R. M. Grumbles, H. J. Bennett, M. Rudinsky, and C. K. Thomas,
Barry University, and The Miami Project to Cure Paralysis, University of Miami.

Determination of D-aspartic Acid in Alzheimer Versus Normal Human Brain.

J. Rios, Y. Reyes, C. Stujenske, T. Edwards, G. Fisher, and A. D'Aniello.
Barry University and Stazione Zoologica Naples.

Scope and Limitations of Benzoyl Peroxide Mediated Amine Oxidation.

A. Nemchik, V. Badescu, and O. Phanstiel IV. University of Central Florida

Oxidation of Alpha-Aminoesters to (Alpha-hydroxyamino)esters.

R. D. Palusak, P. Pignon, and O. Phanstiel IV. University of Central Florida

Synthesis of DFO Conjugates for Use in anti-Mycobacterial Drug Delivery.

R. Kinkade, H. Guo, S. Naser, and O. Phanstiel IV. University of Central Florida

Polyamines as Efficient Drug Vectors.

O. Phanstiel IV, A. Nemchik, T. DaSilva, D. Chakrabarti, C. Wang, and P. Pignon. University of Central Florida

Cell-by-Cell Comparison of Alcian Blue and Zirconyl Hematoxylin Staining in Extramammary Paget's Disease.

A. A. Smith. Barry University.

Epithelial Cell Populations in Asthma: A Quantitative Assessment of the Bronchial Mucosa.

A. T. Mariassy, and B. A. Hyma,
Nova Southeastern University and Dade County ME Office

A Simple Surgical Procedure for the Treatment of Thoracic Outlet Syndrome.

K. M. Tu. MD, FRCS. Nova Southeastern University.

JOINT MEETING

PHYSICS AND SPACE SCIENCES SECTION

ENGINEERING SCIENCES SECTION

Friday, March 8, 2:30 pm – 4:30 pm

A Neutrino Light to Photon Light Converting Matrix.

R. Beckwith, Beckwith Electric Co. Largo, Florida

Predicting Trace Elements in Irradiated Hair Samples from Diet and Lifestyle: What Contributes to Higher Levels of Mercury, and How Can They Be Prevented?

K. Sartore and W. Vernetson, University of Florida .

The Digital World (67 mins).

SCIENCE TEACHING

Friday, March 8, 10:00 am – 4:00 pm

Promoting Research in the Undergraduate Curriculum.

F. A. Redway, and J. K. Frei. Barry University.

Using PowerPoint Slides in the Classroom.

L. R. Jordan. Palm Beach Community College

Beyond Slide Projectors and Overheads: Higher Technology in the Classroom.

M. Gottfried, North Miami Beach Senior High School.

Analyses of Retention Data for 1st-year and 2nd-year Undergraduate Biology Majors in a Small University.

E. T. Hays and J. R. Montague, Barry University.

Project ChemBOND: Evaluation of New Activities for Introductory College Chemistry.

H. J. Dodson, L. E. Hostetter, N. R. Romance, C. E. Carraher, D. W. Louda, D. M. Chamely, and J. E. Haky, Florida Atlantic University.

Toward a Knowledge-Based Framework for Teaching for Science Understanding.

N. R. Romance, M.R. Vitale, and J. Haky, Florida Atlantic University, and East Carolina University, Greenville, North Carolina.

Student Centered Activities for Large Enrollment Undergraduate Programs: The SCALE-UP Project.

J. M. Saul, and R. J. Beichner, University of Central Florida and North Carolina State University, Raleigh, North Carolina.

Do Research-based Curricula Make a Difference in Introductory Physics?

J. M. Saul, University of Central Florida.

The Cavendish Experiment; the Myth and the Truth.

R. G. Jordan, Florida Atlantic University.

Telecommunications Laboratory Exercises for an Introductory Physics Course.

R. R. Criss, St. Leo University.

The Biology of Crime: A Model for Developing Laboratory-based College Science Course for Non-Science Majors.

G.E. Ellis, Barry University.

TECHNICAL SESSIONS

Getting the Most from Quizzes.
R.G. Jordan, Florida Atlantic University.

Mangrove Mitigation at Oleta River Park: Active Learning Through a Community Project.
B. E. Rothstein, and K. D. Morra, North Miami Beach Senior High School.

SOCIAL SCIENCE

Friday, March 8, 8:00 am - 5:15 pm

Construct Validity of the Mayer, Salovey and Caruso Emotional Intelligence Test (MSCEIT).
S. Chaplin, and F. Muscarella. Barry University.

Effectiveness of an Art-based Assessment to Rate Depression in ECT Patients.
B. Jimerson, K. Burns, and M. Kuester. Barry University and Mercy Hospital.

College Students and Sex: Perceptions, Attitudes, and Behaviors.
F. Taylor, and F. Muscarella, Barry University.

Do Personality and Year in School Play a Role in the Academic Achievement of College Students?
E. Raizen, and F. Muscarella, Barry University.

The Psychosocial Impact of Acculturation in Immigrants to the United States.
S. Flores, and F. Muscarella, Barry University.

Self-Boxes and Personality.
R. Farrell-Kirk, F. Muscarella, and M. Dunn-Snow, Barry University.

Neurohormonal Brain Differentiation and Preferred Partner Characteristics.
V. A. Elias, and F. Muscarella, Barry University.

The Perception of Male Homosexual Behavior: An Evolutionary Interpretation.
A. M. Cevallos, and F. Muscarella, Barry University.

The Perception of Sexual Harassment: Same Gender versus Opposite Gender Dyads.
Y. C. Andrade, and F. Muscarella, Barry University.

Women with HIV and AIDS: Measuring Quality of Life through Utilization of Coping Skills and Social Support.
T. X. Hepburn, and D. Jones, Barry University.

The Effects of Education, Employment and Control of Finances on the Psychological Well being of Bengali Women.
S. Hossain, Barry University.

Projective and Cognitive Assessments of Eating Disorders in Two Groups of College Students: Normal Versus Eating Disorders.
L. K. DiGiorgio, Barry University.

From Risk to Resiliency: Determinants of Resiliency in High-Risk Adolescents in a Dropout Prevention Program.
J. Byron, Barry University.

Extraversion as a Determinant of Judgmental Ability.
E. Brautigam, and D. Funder.
Barry University and University of California, Riverside.

Factors Predicting Preference for Advice Exchange with Sibling, Friend and Parent.
E. Brautigam, and L. Szuchman, Barry University.

An Analysis of the Relationship between Personality and Substance Abuse.
S. Valentino, and C. Starratt, Barry University

Citizens and Science in the Everglades: Contesting Expert Narratives of Aquifer Storage and Recovery.
W. E. O'Brien, Florida Atlantic University.

Defining and Measuring Interpersonal Integrity.
D. S. Moore, D. Kahl, M. Fister, and B. Bryan, Saint Leo University

Violent Times: a Case Study of the Ybor City Historic District.
T. A. Danner, Saint Leo University.

Current Economic Conditions in the Florida Sugar Industry.
A. J. Criss, University of South Florida, Petersburg.

A Comparison Between Freshmen and Seniors in Relation to Dependency and Consumption of Alcohol.
B. D. Daignault, Saint Leo University.

Correlation of Alcohol Consumption and Adverse Behavior Among Resident College Students.
K. E. Mauldin, Saint Leo University.

The Effect of Pressure to Conform and Class Standing on Conformity Behavior in a College Sample.
K. Lukasiewicz, Saint Leo University.

The Effect of Bibliotherapy as an External Factor in Student Motivation.
L. Compas. Saint Leo University.

The University Professor's Mind-set Versus Student Satisfaction.
S. A. Mihalic. Saint Leo University.

U.S. Foreign Policy Decision-Making in Theory & Practice: The White House, State Department, Pentagon & CIA.
M. Rimanelli. Saint Leo University

URBAN AND REGIONAL PLANNING

Friday, March 8, 2:30 pm – 3:15 pm

Safe Ways to School (12 minutes)
L. B. Crider, University of Florida

Know the Flow
D. J. Moss, South Florida Water Management District.

Restoring the Everglades: the Advanced Treatment Technology Research Program. (18 minutes) To be screened all day long.
South Florida Water Management District

FLORIDA ACADEMY OF SCIENCES 66TH ANNUAL MEETING
MARCH 7-9, 2002
REGISTRATION FORM

(All persons attending the 66th Annual Meeting must complete this Registration Form and pay the appropriate fees.)

PLEASE TYPE OR PRINT CLEARLY

NAME _____
MAILING ADDRESS _____ CITY _____
STATE _____ ZIP _____ PHONE _____ EMAIL _____

REGISTRATION FEES (Please check appropriate category)

	<u>Early (Pd by 2/15/02)</u>	<u>Regular</u>
REGULAR MEMBER	\$40 _____	\$45 _____
STUDENT MEMBER	\$15 _____	\$20 _____
REGULAR NON-MEMBER (registration only)	\$55 _____	\$60 _____
STUDENT NON-MEMBER (registration only)	\$25 _____	\$30 _____
ON SITE – ONE DAY ONLY	\$30 _____	\$30 _____

MEMBERSHIP DUES

(If you are joining, or have not yet paid 2002 dues, please CHECK membership category)

PATRON	\$1,000 _____
LIFE MEMBER	\$500 _____
CORPORATE	\$200 _____
INSTITUTIONAL	\$100 _____
SUSTAINING	\$40 _____
REGULAR	\$30 _____
STUDENT	\$15 _____

Members receive quarterly issues of *Florida Scientist*, newsletters, and a reduced rate on the annual meeting registration fee.

TOTAL REGISTRATION CHARGES

REGISTRATION FEES \$ _____
MEMBERSHIP FEES (If applicable) \$ _____
BANQUET TICKETS* (\$25.00 Each) \$ _____
TOTAL AMOUNT ENCLOSED: \$ _____

BANQUET SELECTIONS

_____ PRIME RIB
_____ SALMON
_____ VEGETARIAN PLATE

*Banquet Friday Evening, March 8th
Andreas 111 at Barry University

☐ Visa ☐ Master Card ☐ American Express ☐ Check Enclosed
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